

**FAST PRIORITY DETERMINATION
CIRCUIT WITH ROTATING PRIORITY****ABSTRACT OF THE DISCLOSURE**

The invention describes a system for and a method of creating and using dependencies to determine the order of servicing transaction requests in a multiple queue environment. When more than one outstanding transaction affects the same memory location, dependencies are established to ensure the correct sequencing of the competing transactions. In a preferred embodiment the dependency is configured to ensure that, as each request is inserted, other outstanding requests are checked to determine if the same memory location is accessed. If the same memory location is affected, a dependency is created which ensures the youngest queue entry which is present at the time the check is made occurs before the present outstanding request.

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